UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105

January 5, 1994

Steven L. Costa
Project Manager
CH2M Hill
P.O. Box 12681
Oakland, CA 94604-2681

Re: Additional Comments to Draft Study Plans for Joint Cannery Ocean Disposal Modeling Re-evaluation

Dear Steve:

Attached are comments recently received from Walter Frick on the draft study plan for the modeling re-evaluation of ocean disposal of cannery fish waste. I forward these to you for your information and for your consideration when developing the more sophisticated model referenced in the plan.

Please call me at 415/744-1594 if you have any questions.

Sincerely,

Pat Young

Pat Young
American Samoa Program Manager

Enclosure

cc: Jim Cox, Van Camp Seafood Company
Norman Wei, StarKist Seafood Company
Tony Tausaga, American Samoa EPA
Sheila Wiegman, American Samoa EPA

bc: Dave Stuart, W-7-1, Mike Lee, E-4, Allan Ota, W-7-1

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX LABORATORY
1337 S. 46TH STREET BLDG 201
RICHMOND, CA 94804-4698

Febrary 17, 1995

SUBJECT: Review of Joint Cannery Outfall Effluent (DCN #OPIN011O95RJB1) and High Strength Waste Bioassay Testing (DCN #OPIN010O95RJB1) Reports

FROM: Amy L. Wagner (P-3-1) Amy Wagner
Laboratory Section

THRU: Brenda Bettencourt, Chief (P-3-1) BBettencourt
Laboratory Section

TO: Pat Young, E-4
OPINAP

I have reviewed the results from the reports entitled **Bioassay Testing of High Strength Waste: Starkist Samoa, Inc. and VCS Samoa Packing**, and **Joint Cannery Outfall Effluent Testing** from the October 1994 sampling. I have additional comments regarding the SOP for effluent sampling. The following items should be incorporated in the next testing period. If you have any questions, please feel free to call me at (510) 412-2329.

Laboratory Report of Bioassay Results for High Strength Waste Sampling

1. p. 9, Table 2. The salinity that the mysids were shipped in and any salinity acclimation before testing should be stated in the subsequent reports. The mysids should only experience a change in salinity of $\pm$ 2 ppt per day during acclimation.

2. Appendix Table 12. In the sanddab reference toxicant tests, unacceptably low levels of dissolved oxygen (D.O.) were measured. All test replicates with D.O. below 60% of saturation should be aerated.

→ Attachment II: Standard Operating Procedures Joint Cannery Outfall Effluent Sampling for Chemistry and Bioassay Toxicity Testing:

1. p. 5, #4: The procedure should also specify that each vial will be checked for air bubbles by slapping it inverted against the palm of the hand. If air bubbles can be seen, more sample should be added to the vial without overfilling.

2. p. 6, #3: A description of sample preservation and verification of pH should be included in this section. Only VOA vials should be preserved before sampling.

3. p. 6, #5: The packaging section should specify that sample jars should be wrapped in a minimum of 2 layers of bubble wrap for shipping.

4. Some general comments about health and safety protective gear (e.g., safety goggles, gloves) should be mentioned in the SOP.

Attachment IV: Laboratory Report, 96-hour Acute Bioassay, Joint Cannery Outfall Effluent Samples

1. p.2, Section 2.2, Sample Preparation: Since the tests were conducted using hypersaline brine to adjust effluent salinity, a brine control should have been conducted. Brine control and dilution water control results must be compared using a t-test at a p= 0.05 level.

2. p. 5, Table 1: An effort should be made to maintain the test conditions as specified in the test methods (EPA 600/4-90/027). The test method specifies that the age of test organisms should be 1-5 days old, with a 24 hour range in age, and the test temperature should be 20 $\pm$ 1° C or 25 $\pm$ 1 °C.

General Comments

1. I have been recently informed that penaeid shrimp in Hawaiian aquaculture facilities have been devastated due to a virus. Every attempt should be made to acquire penaeid shrimp, but if they are not available on the mainland for the spring 1995 testing, I again recommend that the laboratory use mysid shrimp, *Mysidopsis bahia*, as a surrogate species. As specified in the 10/14/94 memo, brine shrimp must be added to test containers daily and a water change using the original effluent sample should be conducted after 48 hours.

cc: Debra Denton, Whole Effluent Toxicity Coordinator (W-5-1)
Allan Ota, Wetlands and Sediment Management Section (W-3-3)
Steven Costa, CH_2M Hill
Kurt Kline, Advanced Biological Testing, Inc.